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ECONOMIC INDICATORS

NEIGHBOR ISLAND PROFILES

HAWAII COUNTY IN 1984

The economy of the County of Hawaii is on the road to recovery. The turnaround began in 1983 after three consecutive years of decline, and the climb is gaining strength. A good indication of this favorable situation was the growth of the county's gross business receipts to a record $1.4 billion last year, a 14.7 percent improvement over 1982. This figure, which represents the total business transactions in the county over a year's period, nearly doubled since 1975, and has close to quadrupled since 1970 (See Figure 1).

The county's economic expansion is being generated by its visitor industry, which is growing by double-digit proportions this year after being severely impacted by the lengthy national recession which started in 1980. With such a revival, it is no wonder that the county's job count jumped to a record 38,400 in 1983, for a gain of 1.6 percent over 1982 (See Figure 2).

FIGURE 1
GROSS BUSINESS RECEIPTS
HAWAII COUNTY
1970-1983

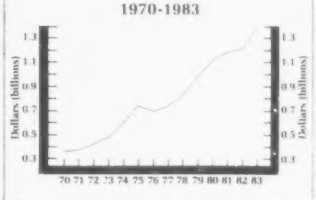
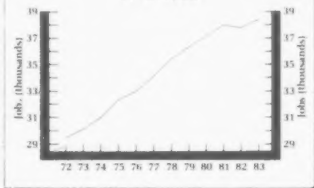


FIGURE 2
TOTAL JOBCOUNT
HAWAII COUNTY
1972-1983



In the same context, the county's unemployment rate dropped to 9.1 percent after climbing sharply in 1981 and 1982 to a peak of 9.8 percent (See Figure 3). The strength of the recovery was also reflected in an increase in county tax collections of 25.3 percent in 1983 from $52.5 million to $65.8 million (See Figure 4).

FIGURE 3
UNEMPLOYMENT RATE
HAWAII COUNTY
1970-1983

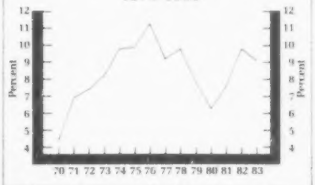
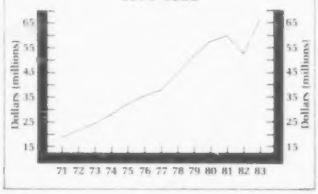


FIGURE 4
COUNTY TAX COLLECTIONS
HAWAII COUNTY
1971-1983



However, not every sector of the economy shares the same optimistic outlook. The industry that casts the darkest shadow is the sugar industry. The Agriculture and Food Act of 1981 expires next year. Unless Hawaii can maintain its position with a Congress that appears ready to make some drastic changes in the national agricultural support program, the sugar industry may continue to deteriorate. This would affect the Big Island more than any other county because it is the largest producer of sugar in the state. East Hawaii particularly is dependent on sugar for a large part of its economic base. With Puna Sugar Co. closing down later this year, any further reduction in sugar production would bring unbearable pressure on the island economy.

Diversified agriculture continues to be a bright spot in the county's economic scene. Exports of agricultural products have continued to expand through astute marketing. Coffee, thought to be a dying crop a few years ago, is suddenly becoming a growth commodity because the Kona crop is now marketed as a gourmet item. Likewise, vegetable growers have found an expanding market in the growing Asian immigrant community in the western states for Oriental-type vegetables.

Construction is definitely the weak spot this year with the volume of residential and government projects at a very low ebb. The recession and high interest rates have forced many potential home buyers to delay home purchases. Public works projects have also disappeared from the county scene because state and county governments have postponed many construction projects because of reductions in government spending. The result is that public works funding will be lean into the indefinite future.

Hawaii County, being the farthest from the political and economic nerve center of Honolulu, was long considered to be at a disadvantage. But, its destiny has always been in its immense size and matchless resources in comparison to the other counties. Development of several of these resources has been going on for a few years now, and is opening up new opportunities that will diversify the county economy, and significantly improve its growth prospects in the years ahead.

The Big Island has the highest mountains in the state. And the summits have the clearest and cleanest atmosphere that can be found anywhere in the nation. The natural result has been the development of the biggest, if not yet the foremost, center for astronomical research in the world.

Hawaii island is the youngest in the state, and its volcanic activity is continuing. Geothermal power has been proven as a valuable resource. Its further development will increase the county's contribution to the state economy in very significant proportions over the next few decades.

All of the islands of the state are blessed with tradewinds for most of the year. The size of the Big Island should make it the biggest generator of wind power in the state.

Research and development on ocean resources have centered on the Big Island because it has the optimal geographic features and available land for such resource-development projects. Despite a reduction in federal funding, important research continues, and the next few years could see some completed studies translated into commercial enterprises.

The growth of the county's commodity and service exports was slowed over the years by the lack of efficient transportation. That situation is changing for the better, and the benefits of this improvement will become more apparent in a few years. Interisland air transportation has improved vastly due to added competition by Mid Pacific Airlines. United Airlines has three direct

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flights to Kona daily from California, and this is helping the visitor industry.

Matson Navigation Co. is building two new efficient barges that will connect Neighbor Island ports with Matson vessels in Honolulu bound for Los Angeles, Oakland or Pacific Northwest ports. More calls to Hilo, and better coordination with departing vessels through efficient handling will shorten the shipping time to the West Coast, and contribute to efficient marketing of the county's growing exports of produce on the Mainland.

Beginning early next year, Matson Navigation Co. will greatly improve its Neighbor Island service with two new 350-foot container barges. They will replace the Mauna Kea, whose capacity is too small to serve the county's growing transportation needs. Although the barges will be towed to their destinations around the state, they are designed for relatively high speed and will be as fast as the Mauna Kea. Each barge will have nearly 20 percent more capacity than the Mauna Kea.

Matson has historically maintained a common tariff to all ports in the state, and this policy is likely to continue in the foreseeable future. The growth of the Big Island economy has now reached a point where economies of scale are helping to improve transportation, and also to moderate potential increases in costs.

The major goal of the outgoing Matayoshi Administration was to develop the island's infra-structure—water and sewer systems, transportation, and energy—as the basis for the economy's long-term growth. That effort is now beginning to bear fruit.

The County's New Industry Development Committee has also completed a study that would make Hilo the state's air cargo warehouse and distribution center with hundreds of acres of land available around Hilo Airport. Proposed is a high technology-type warehouse with very efficient handling and moving. There would be movement of air cargo from Hilo to Maui, Oahu and Kauai, and back, twice a day. Large department stores, for example, could store their entire inventory for the state in Hilo, and fly merchandise to other islands as needed. Mainland investors are interested in putting together this project that would cost from $20 to $30 million.

Furthermore, with the increased role of such organizations as the Hawaii Leeward Planning Conference and the Hawaii Island Economic Development Board, the prospects for greater community and business participation in the county's economic future look more optimistic than ever.

TOURISM

Hawaii County's visitor industry is enjoying vigorous growth, and this performance is making a major contribution to the County's rapid economic recovery. The number of visitors for the first quarter of 1984 increased by 12 percent, reminiscent of the 1979 pace. While such a growth rate may not be sustainable for the entire year, the industry is making a great effort to make the island a favorite destination area, and assure future growth.

The visitor flow to the county peaked in 1978 at 909,000 persons, and the industry had visions of its first million-visitor year within a year or two. However, with the quadrupling of oil prices and an airline strike in 1979, followed by the recession in 1980, the annual numbers declined steadily to 673,000 in 1981. Since then, however, the visitor counts have been increasing steadily. Last year, the total was 739,000. But, it was still a long way from the record year of 1979 (See Figure 5). Despite the visitor decline, however, hotel construction continued all through this period, and the hotel room inventory climbed in every year—from 6,056 in 1979 to 7,368 in 1983 (See Figure 6).

FIGURE 5
ESTIMATED WESTBOUND VISITORS
HAWAII COUNTY
1970-1983

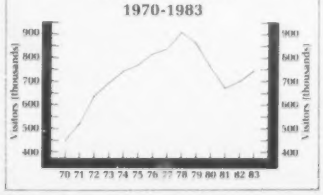
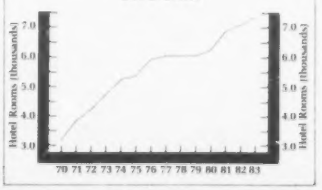


FIGURE 6
HOTEL ROOM INVENTORY
HAWAII COUNTY
1970-1983



The declining visitor count and the increasing number of hotel rooms did a double chop on occupancy rates, sending it down from 62 percent in 1979 to a low of 44 percent in 1982. It bottomed out in 1982, and improved fractionally in 1983. However, this year's first quarter saw occupancy climb to 63.8 percent, enough to make hotel managers smile (See Figure 7).

Another beneficiary of increasing hotel activity is employment, in the form of hotel-service jobs. From an eight-year low of 3,000 jobs in 1981, the count has increased to a record 3,550 in two years, the result of the opening of the Sheraton Royal Waikoloa and the Mauna Lani Bay Hotel in South Kohala (See Figure 8).

FIGURE 7
HOTEL OCCUPANCY RATE
HAWAII COUNTY
1970-1983

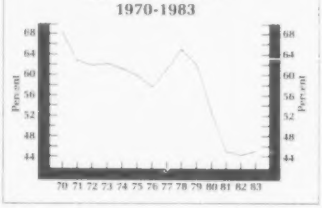
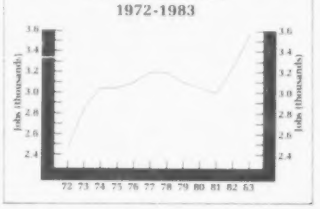


FIGURE 8
HOTEL AND SERVICE JOBCOUNT
HAWAII COUNTY
1972-1983



Furthermore, several events over the past few years have provided a strong stimulus to the county's visitor industry. Among them are the Triathlon, weekly ship cruises, equalization of air fares from Honolulu to the Neighbor Islands, and direct flights to Kona by United Airlines.

The Triathlon has been held in Kailua since 1981, and has been drawing increasingly larger attendance since it began to be covered by ABC-TV's Wide World of Sports. From questionnaires filled out by the majority of 964 athletes and 594 media persons in Kailua for the 1983 Bud Light Ironman Triathlon World Championships, the State Department of Planning and Economic Development determined that they spent $2.7 million. With the multiplier effect, another $1.5 million was generated for a total of $4.2 million. This does not include the spending of thousands of visitors who came as spectators, and the hundreds of representatives of the sponsors of the event.

The growing success of American Hawaiian Cruises' weekly calls at Hilo and Kailua by the S.S. Independence and S.S. Constitution have helped to expose the island to the more affluent segment of the traveling public. Although the ships' capacities are 850 passengers, a weekly call by each ship at the two destinations with full-day stopovers has meant that the passengers have gone on tours, rented cars, taken meals and beverages on the island, and made other purchases—all of which adds to a significant contribution to the county economy.

Last year, the state's three inter-island airlines lowered their fares from Honolulu to the Big Island to match the fares to Maui and to Kauai. This equalization of fares is helping the Big Island. In the past, many Mainland visitors opted to see Kauai or Maui because the fare to the Big Island was higher.

United Airlines began its first direct flight from Los Angeles to Kona in September, 1983. This past June, it added two more daily flights—a second flight from Los Angeles, and the first from San Francisco. Unlike Hilo, Kona arrivals have been good, based on anticipated loads.

The conversion of the Sheraton Waiakea Village and the Hilo Lagoon into commercial condominium offices last year removed 650 units from the hotel inventory. This has raised occupancy of Hilo's hotels to tolerable levels, and business has been much better than it has been for a long time. In fact, the Merry Monarch Festival and the eruption of Mauna Loa earlier this year caused no-vacancy situations, a rarity in the past. Not only visitors, but volcanologists and the media from around the world flocked to Hilo during the eruption.

The most exciting news to greet the visitor industry this year was a report carried by *West Hawaii Today* that Christopher Hemmeter, Honolulu developer, was planning to build a 1,260-room hotel in Waikoloa. While no announcement has been made by Hemmeter, reports are that this will be a world-class hotel to be operated by the Hyatt Hotel chain. If so, it would be the fourth hotel in the South Kohala resort area. Hemmeter developed the

Hyatt Regency Waikiki and the Hyatt Regency Maui, both highly successful hotels.

The newest hotel on the island is the 351-room Mauna Lani Bay Hotel in the South Kohala resort destination area. In operation for a year and a half, the posh resort is building its world-class image, and stressing marketing in its long-term program of building a successful clientele. It has attracted small executive and incentive groups, but the Mauna Lani's main objective is to cater to the independent traveler.

Mauna Lani Resorts Inc. started another project last year—the 88-unit Mauna Lani Terrace condominium. All but a few units have been sold. Its next project is the Mauna Lani Point, a 196-unit condominium-apartment complex, to be built on 30 acres. Construction is scheduled to begin by the end of the year.

The Kona Surf Resort and Convention Center, the southern anchor of West Hawaii's resorts, changed hands on July 1 when FML Funds Advisory Co. of Philadelphia, Pennsylvania, became the sole general partner responsible for management of the property, replacing Inter-Island Resorts. Business at midyear is considerably ahead of last year, and some major conventions have been a good part of the hotel's business. Occupancy is 10 percent ahead of 1983, but the hotel is striving for even further improvement.

At the north end of West Hawaii's resort corridor is Mauna Kea Properties and its Mauna Kea Beach Hotel. An established world-class hotel, Mauna Kea had a very good first half this year.

Mauna Kea Properties, the development arm for the lands around the hotel, has been building high-quality, low-density private residences around the golf course, and marketing them quite successfully. The 33-lot Fairways South development has long been sold out, and most owners have built homes on them. The 32-lot Fairways North development is now in sales, and 10 have been spoken for. The more luxurious Villas at Mauna Kea, being developed in two phases of 23 and 17 units, consist of two- and four-bedroom units. The first phase was introduced at a reception for invited guests last March, and was completely sold within three months. Prices ranged from $750,000 to $1,450,000 per unit. The second phase of 17 units is now on the market, and four have been sold.

The Sheraton Royal Waikoloa Hotel at Anaehoomalu Bay, the first hotel to be built in Waikoloa's resort destination area, is also having a good year. Waikoloa is also expanding its Waikoloa Village with a proposed 134-lot subdivision in a joint venture with Jitchaku Realty. Lots will be 10,000 to 12,000 square feet in size, and sales will be primarily in Japan. Waikoloa is also ready to start work on the 114-unit Shores Condominium project made up of 11 buildings of duplexes and fourplexes and four three-story buildings. It is also in the early stages of planning an equestrian-oriented subdivision composed of 70 five-acre lots.

The King Kamehameha Hotel in Kailua has benefited from the renewed growth of tourism. Business has been up substantially in the first half of 1984, and occupancy has climbed by 15 percent over last year. Management expects the convention business this year will be double that of 1983.

To make Kailua more attractive for visitors, the Kona Coast Chamber of Commerce wants to make Kailua pier a park, and turn Alii Drive in the downtown area into a pedestrian mall. Some businesses feel that closing the street would cause a parking problem, but proponents feel that a beautiful mall would attract foot traffic.

An attempt by community leaders to jointly market the West Hawaii visitor destination areas has made some progress, but there are no plans yet to do so. The South Kohala resorts have tended to market their properties separately as one entity because the feeling is that they cater to a different market than the hotels in Kona.

SUGAR

The plaint that "sugar has fallen on hard times" is true, but needs some explanation. The Hawaiian sugar industry is probably the most efficient and productive grower of sugar in the world. Yet, its cost of production averages around 18.9 cents per pound of sugar compared to a world price that was below 5 cents a pound in July.

The simplest way to explain this discrepancy is to regard the world price as a dump price for growers who have sugar in excess of requirements to fulfill their delivery contracts. Sugar contracted for delivery is priced above cost so the grower is assured a profit. But the excess is marketed at the dump price to get back some of the cost of production. It is the world's excess production that goes into the so-called world market, and this makes up around 20 percent of total world production.

Why do growers keep on producing sugar beyond their contract needs when the price is so low? The answer is that government subsidies make it profitable to continue sugar production. A good example is the European Common Market, which was a net importer of sugar up to 1976. Since then, it has become an exporter because the high subsidy paid growers has encouraged them to produce more and more. The subsidy today is around 30 cents a pound so that even a marginal producer can make a profit. The reason for such a high subsidy is that the farm bloc has political clout, especially in France. Negotiations to moderate this overproduction have not succeeded so far.

This world sugar situation is very important to Hawaii because it affects our major commodity export, and, therefore, thousands of jobs. American refiners and major industrial sugar users would like to get this 5-cent sugar. But this would effectively kill the sugar industry in the United States. The only way the industry can survive is through legislation that supports sugar prices. The industry has had to fight in Congress to get such legislation ever since the Sugar Act was killed by Congress in 1974, even though it worked so well for 40 years.

Sugar was fortunate to be included in the Farm Act (Agriculture and Food Act of 1981) which set a support price of 17 cents a pound in the first year, which rises annually to 18 cents in the fourth and final year of the sugar support period. However, even this was insufficient for the American sugar industry to break-even. How are the growers going to be able to get around 22 cents a pound in order to survive?

The Farm Act lets a grower place his sugar with the U.S. Department of Agriculture (USDA) at the loan rate, currently at 17.5 cents a pound. He may forfeit the sugar to the government and keep the loan amount, or return the loan and sell the sugar on the market. However, USDA policy is not to stockpile sugar, so it uses its powers to raise the sugar price to a minimally profitable support level. This market stabilization price (MSP) is set at a level to provide an incentive for growers to sell their sugar so no stockpiling will be necessary. The USDA prefers to control prices with duties and fees on imports, but this did not work because the formula was partly based on the world price, which in July was as low as 4.7 cents a pound. So it used a second option, setting quotas for foreign sugar imports. By controlling the supply, it has been able to raise the MSP to around 22 cents a pound.

The problem is that the Farm Act expires next year, although the sugar section runs for another year. However, sugar must be included in the Farm Act if it is going to survive. Congressional action next year will be crucial. Unlike other crops, no subsidy is paid to sugar growers. Consumers pay the higher price. But there are powerful groups, particularly large industrial sugar users, who will be working hard to defeat sugar next year. A defeat would probably mean the eventual death of the industry as we know it today.

Aside from the specter of unfavorable legislation, the sugar industry in Hawaii is doing fairly well this year. Weather has been dry on the Big Island, but the rainfall pattern has been right for this year's crop—that is, the dry weather enhances harvesting, the juice quality is higher, with the result that yield is improved.

The county's sugar production in 1983 reached 392,000 tons, the highest since 1975, and 6.2 percent better than the 369,000 tons produced in 1982. Tonnage for this year, however, will be down to around 367,000 tons, because Puna Sugar Co. will complete its final harvest in September, and then go out of the sugar business. The three remaining producers—Hamakua Sugar Co., Hilo Coast Processing Co., and Kau Agribusiness Co.—will all have higher yields, but total production will be down slightly because of the smaller acreage to be harvested. Revenues for the 1983 sugar crop amounted to approximately $148.4 million, an increase of 14 percent over 1982's $129.9 million.

The dry weather did not affect the windward fields too badly, but Kau was hit by a drought that is causing great concern because of its dependency on rain for irrigation. It has been so dry in the upland area that planting of the 1986 crop has not been possible through June. The drought will affect both the 1985 and 1986 sugar crop at Kau.

The Hilo Coast Processing Co. is planning a $15 million ethanol processing plant at its Pepeekeo factory site. The plant would produce 5 million gallons of ethanol annually, and employ 30 people for its operation. Contract negotiations now underway with a major oil company to market the product will ultimately determine if the plant will be built. Production of ethanol is now economically feasible because both the federal government and the state have each approved a five-cent-per-gallon tax break for ethanol factories. The resulting 10-cent-per-gallon tax break will make gasohol competitive with gasoline.

The closing of Puna Sugar Co. this fall will cause some social problems, and open up thousands of acres of sugar lands for other uses. Of the more than 500 employees working for Puna Sugar Co. when plans for the closing were announced in 1982, 290 remain. Some will be retiring, and some have other jobs lined up. But, 160 people will still be looking for work. The company will retain 25 workers to operate the power plant to provide 12 megawatts of power-generating capacity to Hawaii Electric Light Co. The contract runs until 1991.

The company has 9,000 acres owned in fee of which 2,000 acres have been planted in macadamia nuts in a joint venture with a Mainland firm. It also has close to 7,000 acres leased from the W. H. Shipman Estate that runs to 1994. Part of that land may go into bananas. Puna Sugar has also turned 3,400 acres into a trust to provide each of 485 qualified employees with a five-acre plot of land.

Meanwhile, the W. H. Shipman Estate has asked the State Land Use Commission to rezone 487 acres in Keaau from agriculture to urban. The area will be transformed into an industrial park except for 63 acres to be converted into a high technology park, and a smaller area into a botanical garden.

The County Administration has been wooing high-tech firms in Taiwan to bring their operations to the Big Island. The New Industry Development Committee has had talks with several firms. Two of them have expressed real interest, and one of them is having a feasibility study done on a software assembly plant on the island. No site has been discussed but the Shipman high-tech park could be a possibility once it is developed.

DIVERSIFIED AGRICULTURE

Diversified agriculture, which in Hawaii includes all agriculture outside of sugar and pineapple, is a bright spot in the county economy. It has grown rapidly in the past decade, and the future continues to look promising. Because of its vast land area, the Big Island has led all other counties in the expansion of diversified agriculture.

The total value of diversified agricultural production on the Big Island in 1983 amounted to a record $90.7 million, 1.8 percent more than the $89.1 million in 1982 (See Figure 9). The year's total is made up of $66.8 million in diversified crops, and $23.8 million in the value of livestock sales. The diversified crop value showed a 2.1 percent gain over 1982's $65.4 million, and livestock sales barely topped the 1982 total of $23.7 million.

The big increase in diversified crops pushed diversified agriculture ahead of sugar in 1981 in terms of comparative farm values. The gap narrowed in 1982, but will begin to widen from now on as diversified agriculture continues to grow while thousands of acres are taken out of sugarcane this year and in the next three years.

This kind of growth has opened up many new jobs in farming. From a level of 3,500 workers in 1973, diversified agriculture by 1983 had 4,950 gainfully employed on the Big Island (See Figure 10). This was close to three times the number of sugar workers.

FIGURE 9
VALUE OF TOTAL DIVERSIFIED AGRICULTURE PRODUCTS
HAWAII COUNTY
1972-1983

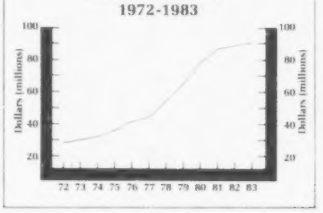
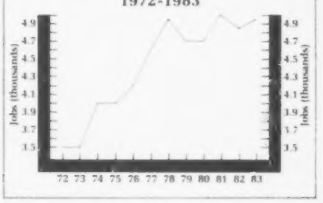


FIGURE 10
DIVERSIFIED AGRICULTURE JOBCOUNT
HAWAII COUNTY
1972-1983



The reason for the county's singular success in diversified agriculture is its success in exploiting latent demand around the world, and developing it as export markets. This had been true of macadamia nuts, papayas, and anthuriums over the past decade. In recent years, ginger was added to this list. More recently, Chinese cabbage and burdock (gobo) have been exported to California where thousands of immigrant Asians have settled, and have created a demand for Oriental-type vegetables.

Macadamia nut production, which is grown almost entirely on the Big Island, reached 36.2 million pounds in 1983, a 1.1 percent decrease from the 1982 crop. Dry weather during the growing season accounted for the decline despite a slight gain in bearing acreage. However, the large inventory from the 1982 crop and another record crop in 1983 have contributed to an oversupply, and prices tumbled for the second consecutive year to an average 68 cents a pound, down from the peak 79 cents in 1981. The value of the crop at $23.8 million is down 12.3 percent from the record $27.1 million in 1982.

Mauna Loa Macadamia Nut Processing Co., which accounts for 60 percent of the total crop, and Hawaiian Holiday Macadamia Nut Co. are the two fully integrated operations in the county, although the latter buys a good portion of its nuts from independent growers. Mauna Loa has a small number of basic products that are well accepted by consumers, while Hawaiian Holiday has around 200 different products.

On the leeward side of the island, Mac Farms of Hawaii is the largest producer. It is basically a supplier, but it has part of its production packaged under contract on the Mainland, which is marketed mainly in Hawaii. The Kona Farmers Cooperative also had part of its production processed on the Mainland, and entered the retail market two years ago. But this effort was unsuccessful, and it has reverted to being a supplier to candy manufacturers and other macadamia nut users.

Papaya production on the Big Island in 1983 reached 59 million pounds with revenues of $10.9 million, regaining ground from the drought-reduced crop of 47.9 million pounds in 1982. The big problem, however, is how to market the record 1984 crop that is forecasted to be in the neighborhood of 90 million pounds for the county.

Approximately 13.5 million pounds of the 1983 crop were processed into puree, and more than 22 million pounds of this year's crop will be similarly processed. Amfac Tropical Products started shipping puree to foreign markets two years ago, and those shipments make up 37 percent of the total today. Puree

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production is expected to increase beginning this fall also because Amfac will be increasing its purchase of fruits from independent growers.

The big concern for growers this past year has been the decision by the Environmental Protection Agency that EDB cannot be used beginning September 1, 1984, to treat papayas for fruit fly eggs. With the deadline fast approaching, the industry found a non-chemical solution—putting the fruit into a hot water bath for 20 minutes, and then under cold temperature for 10 days. Experiments have shown that this treatment works, and the industry will be able to meet the deadline. Irradiation of the fruit has also been suggested, but it would not have met the deadline the industry faced.

The Papaya Administrative Committee has gone to great efforts this year to market the huge crop. Normally, 65 percent of the crop is shipped to the Mainland, particularly the western states. Marketing strategies now include market development in the midwestern and Eastern states. Approximately 15 percent is shipped to Japan, 20 percent is consumed locally, and small shipments go to Hong Kong and to Europe.

Anthuriums, the growth export of the 1970s, have been adversely affected by the strong dollar in relation to foreign currencies since 1981. Big Island growers developed a profitable market in Europe beginning in the early 1970s. However, the strong dollar made anthuriums expensive for European countries, and sales began to decline. Since Europe was the biggest buyer of these flowers, the decline in total annual sales continued for four consecutive years, reaching a low of 1.7 million dozen sold in 1982 from a peak of 2.5 million dozen in 1980. Shipments in 1983 climbed to 2.0 million dozen valued at $5.8 million.

During the decline in European shipments, Big Island shippers began to turn to the Mainland market, which had not been tapped to any degree in the past due to the strong foreign market. Mainland sales for the first four months of 1984 were ahead 22.4 percent over the same period last year. This increase contributed to a 14 percent gain in total shipments for the first four months of 1984, and shippers are looking forward to a much larger gain for the year as a whole.

Kona coffee, which was expected to fade away, is making a comeback as the crop of the future. In the past, when the local coffee price was tied to the world price of coffee, small growers found that they could not weather the volatile swings in the world price. The result was a feast or famine type of production subject to the vagaries of weather.

The Kona Farmers Cooperative, in negotiations three years ago for a new contract with Superior Coffee Co. and Ueshima Coffee Co., was able to settle on a guaranteed price with adjustments based on the coffee-price index. The coffee growers were able to finally convince the processors that Kona coffee is a gourmet product, and should be marketed as such.

This gave a needed boost to the industry. With a guaranteed price for their crop, growers are increasing their investment in their orchards. They are fertilizing and pruning the trees properly, and improving orchard maintenance. In addition, others are putting in new orchards in Kona, and the industry has taken on a new lease on life. The three coffee mills, operated by the Kona Farmers Cooperative, United Coffee Co., and Pacific Coffee Co., will be joined soon by three new mills, two of them to be started by Mainland interests.

The 1982-83 crop, affected by drought, totaled 1.1 million pounds, which was less than half of the previous crop. But the 1983-84 crop came in at 2.5 million pounds valued at a record $5.3 million. Reclamation of abandoned fields and proper maintenance will help increase the yield, while irrigation is being tried for the first time to improve yields. And, new orchards being developed are being prepared by bulldozer to increase harvest efficiency, particularly if a harvesting machine is developed by the University of Hawaii. Average yield today amounts to about 50 bags an acre. Old timers say that in the past, some good fields yielded as much as 250 bags an acre. So with the incentive of a good price, growers should be able to increase yields to a great degree by good farming methods.

Ginger root has been the Cinderella crop on the Big Island, but it was plagued by recent oversupplies. A C. Brewer & Co. subsidiary started planting ginger on a large scale north of Hilo around 1976, but economics forced it to abandon the effort in about a year. But, small growers entered the field, and in a few years demand on the Mainland increased. By 1978, annual production was over a million pounds, practically all on the Big Island. The number of acres planted in ginger increased by 56 percent in 1982, and production topped 3.6 million pounds. The average price shot up 21 percent to 92 cents a pound, and total sales for 1982 were $3.4 million. Last year, acreage jumped 66 percent, and production passed 4.8 million pounds. This volume of supply could not be marketed, and prices soon toppled to 55 cents a pound, and sales dropped to $2.6 million. There has been no acreage increase this year, but production is forecasted at 6.1 million pounds, and the average price likely will drop another 10 cents this year.

Production of Chinese cabbage and burdock has been increasing on the Big Island to fill the demands of the growing Asian communities on the Mainland. Chinese cabbage production totaled 8.5 million pounds in 1983, a million-pound increase over 1982. Burdock production rose to 790,000 pounds from 560,000 pounds in 1982. Production of both are expected to increase this year.

Guava production on the Big Island declined sharply since 1980, and reached a low of 2.1 million pounds in 1982. The crop increased last year, but the average price fell for the fourth consecutive year. The big industrial usage potential on the Mainland is not materializing because of perceptions that the juice is too acidic for normal consumption. Amfac Tropical Products is attempting to develop a variety with less acid to overcome this marketing problem.

Despite widening drought conditions that have affected the county's cattle industry for two years, the value of cattle sales by Big Island producers in 1983 amounted to $18.8 million, down slightly from sales of $18.9 million in 1982.

Cattle ranches have been testing the modern cell grazing program to increase production. Parker Ranch and Kahua Ranch report that this method has been working well for their operations. At Parker Ranch, for example, a large 500-acre tract is divided into 21 pie-shaped cells. A herd of cattle graze in one cell for a day and move on to the following cell the next day. Each cell is used only 17 days a year in this rotation, and the grass is in fine shape by the second go-round. The hoof action and the droppings of the animals help cultivate and fertilize the cells.

Parker Ranch has 5,000 acres in the cell-grazing system, and plans to put another 3,000 acres into the system. Carrying capacity of the cells has doubled in some instances, and productivity has increased.

Kahua Ranch is in the third year of this intensive management system, and the herd has increased by 50 percent. Its goal is to double the herd over six years, and to keep the cost increases to one-third of what it was in the beginning. The drought of the past two years put some stress on the animals, but production increased nevertheless, and the ranch is optimistic about reaching its goal.

HAWAIIAN BANK
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CONSTRUCTION

The county's construction industry rode a phenomenal tide of activity in the late 1970s to a peak of $188.5 million in building permits and government contracts awarded in 1980. Then, the long recession knocked construction down to famine levels, and the industry has been trying to establish a bottom this year.

Total private permits and public building contracts dropped to $98.1 million in 1982, and recovered slightly to $108.2 million in 1983 on the strength of the development of Prince Kuhio Plaza and Keauhou Shopping Village. However, total permits and contracts were down again in the first half of 1984 (See Figure 11).

Another indicator that depicts the ill fortune of the industry is the number of contract construction jobs. It peaked at 1,950 in 1980, probably the highest number ever reached in the county. The number dropped steadily since then, and averaged 1,300 last year. The situation is continuing to deteriorate this year, but there were signs of a slight improvement at midyear (See Figure 12).

FIGURE 11
VALUE OF PRIVATE PERMITS AND PUBLIC CONTRACTS
HAWAII COUNTY
1970-1983

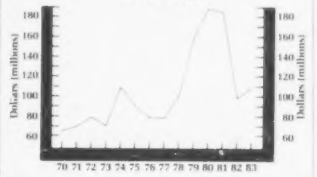
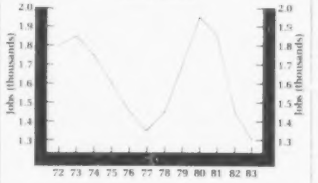


FIGURE 12
CONSTRUCTION JOBCOUNT
HAWAII COUNTY
1972-1983



The Prince Kuhio Plaza is the project that is keeping construction alive in East Hawaii, and the big project in Kona is the Keauhou Shopping Village. The Prince Kuhio Plaza in Hilo will have 440,000 square feet of leasable space with 70 shops on a 39-acre parcel southwest of the airport. Its projected cost is $47.5 million. The center is scheduled to open in January, 1985, and will provide 1,200 jobs when fully occupied. Not all will be new jobs, as some major tenants will relocate to the center from present locations in town.

Kamehameha Investment Corp. (KIC) is developing the shopping village at Keauhou which will have seven separate buildings with a total 72,000 square feet of floor space. The largest at 30,000 square feet will house a grocery chain. The center will open in November. In addition, an 85-lot subdivision is being developed, and KIC formed a joint venture with a contractor to build a nine-hole golf course. It will open early next year and will be combined with the present 18-hole course.

In the past when private-sector construction eased due to economic reasons, public projects were speeded up to relieve some of the slack. The current plight of the industry is the inability of government to increase its public works volume due to tightened budgets. The state is facing austere times, and the Legislature has been very skimpy with public works funds simply because it has no funds to appropriate.

Sidney Fuke, County Director of Planning, said the county is out of funds for big capital improvements, and will have to depend on private developers through improvement districts. Projects initiated by private developers, if approved by the County Council, would be financed by improvement district bonds sold by the County. These projects could include roadways, water-development and transmission systems, or sewage-disposal systems. The Kona water project, for example, was initiated by a group of developers, approved by the County Council, and financed by the lower-cost improvement-district bonds.

The County Planning Department has completed the General Plan for Kona which designates four areas for resort development—Kailua, Keauhou, the Kealakekua Bay area at Honaunau, and Honokahau. Kailua and Keauhou are the only areas that have been developed so far. The Honokahau area is favored for development next with its 400 acres within the resort zone. It is an unsettled area, and developers would not have to make adjustments for inconveniencing people during construction. The Honaunau area wouldn't be suitable for development until water is developed in the area.

ASTRONOMY

After more than a decade of effort, the University of Hawaii Department of Astronomy now has a world-acclaimed astronomical facility on the summit of Mauna Kea with state-of-the-art observatories, and more of them planned. The University controls the entire summit down to the 11,000-foot elevation, or more than 13,300 acres of the best land available for astronomical research.

There are four observatories in operation, and two are under construction. They are the $30-million Canada-France-Hawaii telesecope, the NASA Infra-Red Telescope Facility that cost $10 million, and the University's $10 million and $3.2 million telescopes. Under construction are the $20 million facility for the United Kingdom and Caltech's $10 million observatory. All together, they will cost $66.5 million to build.

The University of California is planning a 10-meter (400-inch) reflector telescope that is expected to cost $100 million. It has decided to locate it on Mauna Kea when the financing can be arranged. The University of Tokyo is also deep in discussion about locating a four- to five-meter telescope costing $50 million on Mauna Kea. There have been some inquiries about locating interferomatic telescopes on Mauna Kea, which is ideally suited for such a facility because of the dry atmosphere. The biggest prize would be the NNTT (National New Technology Telescope) which would cost $150 million to build, which would employ up to 60 people, with annual operating costs at around $10 million. Mauna Kea is a prime candidate for this very advanced facility, but other groups on the Mainland are working equally hard to have it located at their research centers.

The six telescopes now on Mauna Kea employ 126 persons to operate and maintain them at a cost of more than $10 million annually. State funds for astronomy totaled $1.7 million in 1983 compared with federal grants of $5.3 million, not counting operational cost contributions.

The University will spend $5 million to improve the road, and another $5.5 million to bring a power line all the way to the summit. This improvement of the infrastructure is to create further incentives for federal officials to locate the NNTT at Mauna Kea. A mid-level facility was completed last year at a cost of $6.5 million. It contains a dormitory, work areas, cafeteria and recreation room for scientists and other staff. This will have to be expanded when the University of California facility is built there.

RENEWABLE ENERGY

The county's renewable energy development program has generated great expectations during the past decade, but much more remains to be accomplished. Although renewable energy will provide 40 percent of the power that Hawaii Electric Light Co. will sell to consumers this year, the potential for totally replacing oil as a fuel source still remains far in the future.

Biomass Energy

The biggest source of renewable energy today is biomass—the burning of bagasse (or residue from sugar processing) to produce power. The Hilo Coast Processing Co. and Puna Sugar Co. factories and Hamakua Sugar's Honokaa and Ookala mills will produce 80 percent of the renewable energy this year.

With Puna Sugar going out of business this year, it was feared that Helco would lose the 12 megawatts of capacity that Puna Sugar had contracted to provide until 1991. However, Puna Sugar has agreed to continue to provide the volume of power contracted for. The company will use woodchips and purchased bagasse as fuel, and go to oil when it becomes necessary.

Another source of biomass for energy purposes is being researched by BioEnergy Development Corp., a C. Brewer & Co. subsidiary, in the uplands of Kau and Hamakua. This tree-farming project was started in 1979, and some of the faster growing eucalyptus varieties have grown more than a foot a month. The tallest stand 75 feet tall, and are 6 to 10 inches in diameter. The farms are located in five sites along the Hamakua Coast and

two sites in Kau. This is the most promising of the 25 short-term wood biomass projects being funded by the federal government across the country.

Wind Energy

Energy from wind made its appearance on the Big Island last year when Helco purchased 750,000 kilowatt hours from Windpower Pacific. The output this year is forecast to be 1.9 million kilowatt hours, and for 1985, it should be several times that volume. Windpower Pacific signed an agreement with Kahua Ranch in the beginning of 1983 to install 198 windmills on ranch land to supply three megawatts (1 megawatt equals 1,000 kilowatts) of capacity to Helco. All the windmills are scheduled to be installed by this fall.

Another windpower operation known as Kamakani Ikaika was started last year. Its 70-acre Kamaoa Wind Farm is located down the road toward South Point from the belt road. Two 200-kilowatt windmills were installed in December, 1983, and a further 108 windmills will be installed before the end of this year. Installed cost will be $10 million, and they will provide a five-megawatt capacity. The partnership will build a substation at the wind farm, and install a transmission line to the Helco grid. Export of power should begin next year. Early plans are to expand the farm's capacity to 10 megawatts, but there is no determinate date.

Hydroelectric Power

Hydroelectric power is the oldest renewable energy source that Helco has been using. The 3.3 megawatt hydroelectric capacity is supplied by Helco's own two hydroelectric power plants installed above Hilo years ago. It will provide about 20 million kilowatt hours of power this year.

Geothermal Energy

The renewable energy source with the biggest potential is geothermal energy. Prospects looked so good that three years ago Helco felt that geothermal energy would be the energy of the future, and that it had built its last oil-fired generating plant. It asked for proposals from any firm able to supply 25 megawatts of geothermal capacity. The deadline for the proposals was last February. However, because of lack of response, the deadline was rescheduled to January, 1985 for 14 megawatts of geothermal power capacity. Helco needs that much power by the end of 1987, and unless it receives a definite bid by the new deadline, it will have to begin planning a 14 megawatt diesel-fired generating plant so it can fill growing power requirements by 1988. If it has to be built, that plant will be located on the leeward side.

Of the private developers, Puna Geothermal Venture—a joint venture between Thermal Power, Dillingham, and Amfac—has drilled two wells beyond Pahoa, and Barnwell Geothermal has drilled two, and is drilling its third well. The Campbell-Mid-Pacific-True consortium has received a permit to explore for geothermal-grade steam in a small area of Campbell Estate property in the conservation zone of Kilauea volcano's upper rift area.

The only geothermal well in operation is the HGP-A facility drilled by the University of Hawaii near the initial site of the 1955 eruption outside of Pahoa. Although it is a research facility for the University, its three-megawatt plant provides a normal annual supply of 24 million kilowatt hours to Helco's grid, sufficient supply for more than 2,000 homes. The state recently approved the Puna High Technology Facility, to be built at the well site at a cost of $325,000. It will be used for high-technology research and development as well as demonstrations of geothermal and related activities. Research areas to be examined include multi-purpose dehydration and biomass applications using geothermal energy, the extraction of silica, as well as waste heat for drying fruit, hay and other crops, papaya double dipping, agricultural hot houses, aquaculture, and health spas. Other potential activities include the production of hydrogen, and development of an industrial park that would utilize the electric power and heat available from the geothermal fluid.

Ocean Thermal Energy Conversion

Extracting energy from seawater has been proven feasible by the Natural Energy Laboratory of Hawaii (NELH) at Keahole Point on the Big Island. Using a closed-cycle system on a barge named Mini-OTEC, off Keahole Point, scientists generated net energy for the first time in August, 1979. With the closed-cycle theory proven, federal funds were terminated, and the University of Hawaii-administered laboratory went on to research the open-cycle system of energy conversion. The open-cycle is a more efficient technology, carries less risk of environmental pollution, and will produce more power per gallon of water pumped when the process is perfected.

NELH's Seacoast Test Facility installed a 12-inch diameter pipe down 1,925 feet into the sea off Keahole in 1981 to bring up cold, nutrient-rich seawater. The state paid for the pipe system in order to stimulate research on the use of the cold water in the development of aquacultural by-products of the OTEC program.

The first experiments were with salmon and rainbow trout, funded by State and Sea Grant money. Both research programs turned out very successfully. The study showed that if cold seawater from a 60-megawatt OTEC plant were used to raise salmon, the profit from the sale of the fish would be 20 times the value of power generated from that plant.

Culture of nori, a variety of kelp grown extensively in Japan, also was very successful in a mixture of deep and surface seawater. The nitrates, phosphates and silicates from the cold water are the nutrients required by the kelp, and growth was rapid. Samples were sent to Japan for testing and processing. The resulting product was not optimal because the kelp was not processed soon enough. Scientists at the lab feel that the product would be of higher grade if processing were done locally.

The successful culture of kelp and availability of cold water attracted Monterey Abalone Farms to Keahole two years ago to see whether abalone could be grown here. The cold water at Keahole was found to be much better than expected for abalone and shellfish culture. The water is colder than required, so water temperature can be controlled easily. Abalone lives on diatoms when young, and on kelp at the adult stage. The cold water also has no pathogens, so it is a healthy environment for abalones. With the successful conclusion of the experiment, Monterey Abalone Farms subleased 21 acres next to the lab to raise abalones. It will invest $10 million over the next two years for kelp ponds and tanks to grow the shellfish.

Sanders Associates recently concluded successful experiments in growing Maine lobsters at Keahole, but due to high costs, the operation was shown not to be economically viable at present. In lieu of user fees, the state received all of the equipment Sanders had installed, but Sanders retained the licensing rights.

The research lab has also started an algae project for possible use in drug manufacture, and is also examining the feasibility of raising clams, oysters and marine shrimp.

RETIREMENT INDUSTRY

When Hawaii was looking at new alternatives in diversifying its economy after World War II, the retirement industry was looked upon as one of the more favorable options. However, it never got anywhere due to the high costs of living in Hawaii. However, it is now emerging as a viable candidate for diversification in West Hawaii. Circumstances have changed, and retirees today are people of relatively higher means than in the past. Many own homes, some own condos, and others rent condos. Many are able to travel and spend part of the year on the island. It is difficult to measure their size, but they are spread from North Kona to South Kona and to Puna. This is a nonpolluting industry, and assures a flow of recession-proof spending. The good weather has appeared to offset high living costs.

Improved hospital care and police protection are things elderly people want where they settle, and Kona is beginning to provide them. A 30-unit interim care facility is being planned for Waikoloa Village. Efforts are being made to develop a rehabilitation hospital in Kona with 60 beds and 120 apartments catering primarily to elderly residents.

CONCLUSION

In conclusion, we reiterate our conviction that the economy of the County of Hawaii is now firmly on the growth track, and that

the future certainly looks bright. However, there are a few issues that the county is wrestling with, and the way in which they are faced and dealt with by the community at large will determine how consistent and fruitful future growth in the county will be.

One of the big issues of the day is the proposal by the Hawaii County Taxpayers Association to cut the residential tax rate for real property by more than half. The County Attorney has issued an opinion that such action would be unconstitutional under the First Amendment because it would impair the County's unlimited taxing power to meet its obligations, such as repayment of bonds. However, the key issue in this debate instead should be how much taxes would be required—and used as efficiently as possible—to provide the level of public services necessary to assure the kind of growth that would best serve the long-term needs of the residents of the entire county.

Another important issue is the growing Hawaiian activist movement. The need for communication and compromise would appear to be the way to clear the air, and arrive at mutually acceptable and beneficial results. Examples of successful approaches are the cases of the King Kamehameha and Mauna Lani Hotels, in which the owners accepted the fact that their properties contained historical and cultural sites, and by working with concerned Hawaiian groups, arrived at mutually satisfactory solutions. An example of one that failed was the case of Space Services Inc., which was seeking 10 acres of land near South Point for a satellite launching site. Failure to allay the concerns of Hawaiians regarding the use of the land, and to communicate effectively about the operation failed to produce an agreement. An example of a case where discussions have been continuing for some time is the attempt by Puna Hui Ohana to protect the interests of Hawaiians in the Puna area in the face of major economic changes going on around them, such as the development of geothermal energy, and the closing of Puna Sugar Co. The Hui is basically interested in a reasonable livelihood for Hawaiians in the area. Effective communication by establishment groups is the key to breaking down barriers, and bringing about solutions that will benefit the entire community.

Shurei Hirozawa
Vice-President
Marketing Division

Hawaii County Statistics

	Unit	Period	1979	1980	1981	1982	1983	1st Qtr. 1984	% change 1st Qtr. 1984/1983	% change 1983/1982
Population, Resident	number	July 1	89,000	92,800	95,900	98,300	n.a.	n.a.	n.a.	n.a.
Per Capita Personal Income	dollars	total	7,559	8,803	8,954	9,148	n.a.	n.a.	n.a.	n.a.
Civilian Labor Force	number	mo. avg.	37,200	41,850	44,150	45,450	46,650	46,100	0.0	2.6
Employment	number	mo. avg.	34,250	39,200	40,850	41,050	42,400	42,150	1.2	3.3
Unemployment	number	mo. avg.	2,900	2,650	3,400	4,450	4,250	3,950	−11.2	−4.5
Unemployment Rate	percent	mo. avg.	7.8	6.3	7.6	9.8	9.1	8.6	−11.3	−7.1
Total Job Count[1]	number	mo. avg.	36,300	37,200	38,000	37,800	38,400	37,800	0.0	1.6
Tax Collections[2]	thous. $	total	51,689	57,404	59,698	52,485	65,787	17,032	12.2	25.3
Total Bank Deposits	thous. $	mo. avg.	282,646	330,831	350,435	359,939	414,929	450,198	12.7	15.3
Debits to Demand Deposits	mil. $	total	2,496	2,945	2,908	2,915	2,865	776	5.1	−1.7
Private Permits										
Residential	thous. $	total	91,942	108,360	73,708	61,056	56,853	13,168	−20.7	−6.9
Single Family	no. of units	total	1,429	1,192	1,030	800	880	216	−0.9	10.0
Multi-Family	no. of units	total	734	739	293	249	96	12	−65.7	−61.4
Non-Residential	thous. $	total	20,547	37,598	62,747	14,153	31,163	10,437	197.6	120.2
Public Contracts Awarded	thous. $	total	46,965	42,543	48,362	22,920	20,152	5,549	−44.5	−12.1
Federal	thous. $	total	2,152	1,924	4,857	1,409	171	0	−100.0	−87.9
State	thous. $	total	39,818	31,822	40,084	16,875	15,573	4,776	−48.0	−7.7
County	thous. $	total	4,994	8,798	3,421	4,636	4,407	773	22.1	−4.9
Estimated Westbound Visitors	thous.	total	861	761	673	704	739	215	13.4	5.0
Intended Length of Stay—Westbound	no. of days	mo. avg.	3.4	3.5	3.6	3.6	n.a.	n.a.	n.a.	n.a.
Hotel Inventory	number	June	6,056	6,260	6,859	7,106	7,368	7,149[3]	−4.3[3]	3.7
Hotel Occupancy	percent	mo. avg.	62.0	52.7	44.9	44.2	44.7	63.8	26.6	1.1
Telephone Access Lines[4]	number	end per.	n.a.	n.a.	40,998	42,099	43,815	44,494	4.5	4.1
Motor Vehicle Registration	number	total	67,718	70,047	75,812	77,024	n.a.	n.a.	n.a.	n.a.
Sugar Production, raw sugar 96°	thous. tons	total	388	367	384	369	392	58	−1.7	6.2
Diversified Agriculture	mil. $	total	66	78	87	89	91	n.a.	n.a.	2.2
Crops (excludes sugar)	mil. $	total	44	56	64	65	67	n.a.	n.a.	3.1
Livestock	mil. $	total	21	22	23	24	24	n.a.	n.a.	0.0

n.a. = not available

[1] *Refers to number of jobs rather than number of persons employed. Persons with more than one job are counted more than once.*

[2] *Totals do not include property taxes.*

[3] *Data compares February 1983 and 1984.*

[4] *Access lines represent the lines connecting customers to the network regardless of the ownership of the customer premises equipment.*

RESEARCH DEPARTMENT
NEIGHBOR ISLAND PROFILES
JULY/AUGUST 1984

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